

Work Order ID 66179

Monday, February 07, 2011 11:45:18 AM

Page 1

Item ID: D6014-090

Accept

Setup Start

Revision ID:

Item Name: ALUMINUM EXTRUSION

Stop

Start Date: 2/8/2011 Start Qty: 40.00

Cust Item ID:

Required Date: 2/22/2011 Req'd Qty: 40.00

Customer:

Reference:

Approvals:

Process Plan: *MF*

Date: 11-08-07

Tooling:

Date:

Run Start

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D6014

Rev A

100

0.00



Purchasing

PURCHASING

Memo

0.00

Purchasing

Issue P/O: 13460

a) Extrude as per Dwg D6014

b) Material: 7075-T73/T73510/T73511 (QQ-A-200/11) Seamless Aluminum Tube

c) Minimum ultimate tensile strength = 68 ksi

d) Minimum tensile yield strength = 57 ksi

Possible Supplier: Aluminum Works

Mater

CL 1102109 (40) 28

110

0.00



Packaging

Receive & Inspect for Damage & Mat'l Certs

Memo

0.00

Packaging

Ensure material certification is attached

Rec'd (32)

Dart Aerospace Ltd

WORK ORDER CHANGES

W/O:		PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
DATE	STEP						

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

WORK ORDER NON-CONFORMANCE (NCR)

Resolution: _____

Disposition: _____

QA: NCR Closed: _____

WORK ORDER NON-CONFORMANCE (NCR)

NCR:		Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
DATE	STEP		Initial	Action Description	Sign & Date			
			Chief Eng	Chief Eng				

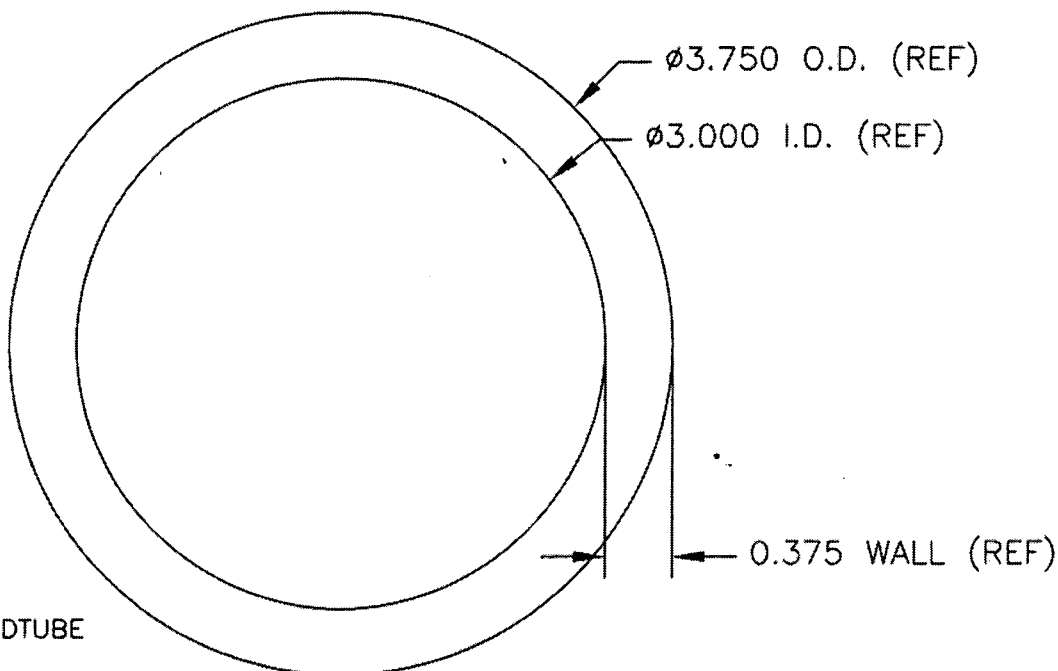
NOTE: Date & initial all entries

DART

DESIGN PH	DRAWN BY PH	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D6014	REV. A SHEET 1 OF 1
DATE 05.03.18	TITLE SKIDTUBE MATERIAL		SCALE 1:1
A	05.03.18	NEW ISSUE	

RELEASED
05-08-09

#66179

SPECIFICATION CONTROL DRAWINGNOTES

- 1) D6014-XXX SKIDTUBE
LENGTH

WHERE XXX IS LENGTH IN INCHES
EG. 64" LONG TUBE: D6014-064

- 2) MATERIAL: 3.750 OD x 0.375 WALL 7075-T73/T73510/T73511 PER QQ-A-200/11
SEAMLESS ALUMINUM TUBE.
MINIMUM ULTIMATE TENSILE STRENGTH = 68 ksi
MINIMUM YIELD TENSILE STRENGTH = 57 ksi
- 3) TOLERANCES ARE PER ASTM B210 AS FOLLOWS:
O.D.: ± 0.008 MEAN (± 0.016 INCLUDING OVALITY)
WALL: ± 0.015 MEAN (± 0.038 INCLUDING ECCENTRICITY)
LENGTH: XXX $+0.188/-0.000$
STRAIGHTNESS: 0.010" DEVIATION / 12" LENGTH
- 4) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 5) CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PO REPRINT

Purchase Order ID PO13460

Purchase Order Date 2/09/11
PO Print Date 2/10/11

Page Number 1 of 1

Order From :

VU-ALU001

ALUMINIUMWERK UNNA AG
UELZENER WEG 36, 59425 UNNA
GERMANY, GERMANY

Contact Name
Vendor Phone 303 755 5936
Vendor Fax 303 755 5672
Vendor Account Nbr

Buyer Chantal Lavoie
Requisition Nbr
Tax Resale Nbr 10127-2607
Terms Net 30
Currency USD
FOB Destination-Collect

Ship To :

DART AEROSPACE LTD 1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

e-mail Patrick
FAX 613 632 1053

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req. Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1	D6014-090P	ALUMINUM EXTRUSION	10/21/11 Yes	28.00 Each	Yours ppd	\$520.0000	\$14,560.00
		Special Inst:	EXTRUDE AS PER DWG D6014 REV. A B66179 MATERIAL: 7075- T73/T73510/T73511 AS PER QQ-A-200/11 SEAMLESS ALUMINUM TUBE MINIMUM ULTIMATE TENSILE STRENGTH = 68 KSI MINIMUM TENSILE YIELD STRENGTH = 57 KSI				
PO Total:							\$14,560.00

MATERIAL CERTIFICATION
REQD UPON DELIVERY

Change Nbr: 2

Change Date: 2/10/11

No substitution or deviation without
consent.
Certificate of Conformity or Material
Certification required when applicable

Packinglist AL Unna AG

Boxmarking:

We hereby declare that the wooden packing material are totally free from bark and apparently

free from live plant pests

S:\VERSAND\USA_Packliste\40566_1

Abnahmeprüfzeugnis 3.1 - DIN EN 10204:2005

Inspection Certificate 3.1 - DIN EN 10204:2005 / Certificat de Reception 3.1- DIN EN 10204:2005

Kunde: Dart Aerospace Ltd.
Client: 1270 Aberdeen Street
 K6A1K7 Hawkesbury, ON Canada

Zeugnisnummer: 880/11

Cert No. / No. du certificat:

Bestellnummer: PO13460

Order No. / No. de commande:

Auftrag: 40566/1

Our Reference/Notre Reference:

Produkt: Rohre nahtlos gepresst
Product / Produit: Tubes seamless extruded
Spezifikation: AMS - QQ - A - 200/11; -
Specification:

Werkstoff: 7075
Alloy/Alliage:

Zustand: 73511
Temper/Etat:

Abmessung: 3,750 INCH x 3,000 INCH x 0,375 INCH x 90,000 INCH
Size / Dimension: D6014-090 3.750 X 0.375 X 90

Kennzeichnung: ALUnna - Cert No. 880/11 - 7075-T 73511 - Cast No. 5645 - AMS QQA 200/11E - 3.750" OD X 0.375" Wall - Heat
Marking/Marquage: Lot No. 1400833 - ALUnna Order Conf. No. 40566/1-1 PO. 13460

Lieferung: pcs. lbs
Delivered Material / Matériel délivré: 32 1171 **Country of Manufacture: Germany**

Products are in accordance with applicable RoHS

1. Chemische Analyse Chemical Analysis / analyse chimique

Elemente ohne Grenzwerte:
 einzeln max. 0,05 %, insgesamt 0,15 %

	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Zr	Bi	Sn	Ni
Charge/ min.			1,2		2,1	0,18	5,1						
Cast No. max.	0,40	0,50	2,0	0,30	2,9	0,28	6,1	0,20					
5645/11	0,089	0,178	1,413	0,032	2,519	0,205	5,773	0,034	0,002	0,0173	0,0001	0,0013	0,0002

Hydrogen content: 0,10

ccm/100 g Al Elements without indication < 0,01 %

country of melt manufacturer: Germany

2. Mechanische Eigenschaften

Mechanical Properties / Valeurs Mécaniques

Anforderungen Requirements	tensile (Rm) ksi	yield (Rp0,2) ksi	elongation 2" %	elongation A %	Hardness HB	Heat Lot No.
min.	70,0	61,0	8,0			
max.						
1	77,575	67,860	10,0			1400833
2	79,460	70,325	10,0			
S wloskiz						

RMS outside 25 max. 14,0 µ"

Ergebnis der Prüfungen: Es wird bestätigt, daß die Lieferung geprüft wurde und den Vereinbarungen bei der Bestellannahme entspricht

Test results: We confirm that the delivery has been tested and applies to the agreements made on receipt of the order

Resultats: Nous confirmons que la livraison a été contrôlée et correspond avec les conventions faites à la réception de la commande

